Los Alamos

NATIONAL LABORATORY

CRANE OPERATOR SAFETY CHECKLIST

This checklist should be used as a guide for evaluating an operator's ability to operate lifts and make lifts safely. Return this form with the Application for Operator Certification for Cranes and Hoists (Form 1486).

| | Operat | or's | Name | e (Print) |
|----|------------|------|----------|--|
| ; | simii | ar | to t | : Ask the operator the following questions. The operator's responses should be he answers given after each question. Check YES if the operator knows the answer to and NO if he/she does not know the answer. |
| 1. | Yes | _ | | What's the difference between a bridge crane and a hoist? A bridge crane operates on two tracks, and a hoist operates on a single monorail track. |
| 2. | | | | What's the difference in motion between a bridge crane and a hoist? A bridge crane has four-way motion, while a hoist operates on a single monorail track. |
| 3. | | | Q: A: | What are the components of a bridge crane? Bridge, trolley, hoist, drum, hoist wire rope, block, hook, pendant, stops, bumpers, and limit switches. |
| 4. | | | | What standard markings are used on a pendant control? Hoist up or down, trolley movement, bridge movement, on/off switch. |
| 5. | | | Q: A: | Is an on/off switch required on a pendant control? Why? It's required for emergency stops in case any of the pendant controls fail. |
| 6. | | | Q: A: | What is "side loading"? Is it legal? Side loading, lifting a load that is not vertical, is illegal. |
| 7. | | | Q: A: | What is "drum overlapping" on a bridge crane, and what causes it? Drum overlapping occurs when the hoist cable will not lie properly in the grooves on the hoist drum because the operator has not centered the hook over the load and has started lifting the load from an angle. |
| 8. | | | | How many wraps of wire rope must remain on the hoist drum when the hoist block reaches the lowest working level in the work area? No fewer than two full wraps must remain on the drum at its lowest position. |
| 9. | | | | Must all cranes have upper-limit switches and, if so, how often must they be tested? All motor-driven bridge cranes and hoists must have upper-limit switches, and they must be tested each day the crane is used. |
| 10 |). | | | What is a limit switch? Should it be tested with a load? A limit switch is an emergency safety device. It should never be used as an operating tool. |
| 11 | ı. 🗆 | | | Does the operator know the location of the main electrical disconnect for a bridge crane or hoist? The operator must know the location of the main disconnect from any operating area on the floor. |
| 12 | 2. 🗆 | | | What is the proper procedure to follow if you find that a crane is defective? For example, the upper-limit switch fails to operate, a pendant control fails, or the hoist doesn't hold the load. Report the defect to the supervisor immediately, lockout/tagout the main electrical disconnect, and report the defect to the Facilities Engineering (ENG) Division. |
| 13 | 3. □ | | Q: | What are the inspection requirements for all bridge cranes and hoists? |

operator who is assigned by the supervisor.

A: A monthly inspection must be conducted and documented on the appropriate forms by the responsible crane

| 14. 🗌 🗌 | Q: A: | Is any hoist brake drift allowed when you stop a crane with a load? No. If hoist brake drift occurs, follow lockout/tagout procedures and report the condition to ENG Division. | | | | |
|---------|----------|--|------------------------|------|--|--|
| 15. 🗌 🗀 | Q: A: | Is it permissible to leave a load suspended on a crane hook? No, the load must never be left unattended or suspended, and must never be transported above personnel. | | | | |
| 16. 🗆 🗆 | | Can the maximum rated capacity be exceeded on a crane or hoist? No, not during normal operations. | | | | |
| 17. 🗆 🗆 | Q: A: | When must slings and rigging accessories be inspected? They must be inspected before each use, and they must be labeled with the rated capacity. | | | | |
| 18. 🗌 🗀 | Q: A: | What precautions should be taken when using wire rope slings or synthetic web slings? Padding should be used to protect slings from sharp edges. | | | | |
| 19. 🗆 🗆 | | What precautions should be taken when using eyebolts as lifting fixtures? Ordinary eyebolts must never be loaded with a vector force that is applied at an angle of less than 45 degrees from the horizontal. Eyebolts with shoulders must have the shoulder screwed down tight against a flat surface. | | | | |
| 20. 🗆 🗆 | | How should wire rope clips be installed? The shoe of the clip must always rest on the portion of the wire that will hold the load and take the stress. The U-bolt portion must be installed on the dead-end or turned-back section of the rope. | | | | |
| 21. 🗆 🗆 | | How is wire rope affected by kinks? Kinks weaken wire rope. | | | | |
| 22. 🗆 🗆 | Q: A: | What is a high-consequence lift? A high-consequence lift involves a load that exceeds 75% of a crane's rated capacity. Only a qualified crane operator should perform this lift. | | | | |
| 23. 🗌 🗀 | Q: A: | Which cranes are you authorized to operate? The cranes listed on the back of my operator's card as designated by my supervisor. (Supervisors are required to designate which equipment an individual has been trained on.) | | | | |
| | | | Supervisor's Signature | Date | | |
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